Table S2: Boreholes used for validation of the permafrost model. x highlights years where data is available.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Borehole** | **Lat** | **Lon** | **Elevation**  **(m)** | **Depth (m)** | **08/09** | **09/10** | **10/11** | **11/12** | **Reference** |
| **Abojavri BH1** | 69.642 | 22.194 | 761 | 6.6 | x | X | x |  | Farbrot et al. 2013 |
| **Abojavri BH2** | 69.681 | 22.126 | 570 | 30.3 | x | X |  |  | Farbrot et al. 2013 |
| **BH31/PACE31** | 61.676 | 8.368 | 1894 | 20 | x | X | x | x | Isaksen et al. 2011 |
| **Guolosjavri BH1** | 69.354 | 21.211 | 786 | 32.3 |  | X | x | x | Farbrot et al. 2013 |
| **Guolosjavri BH2** | 69.366 | 21.168 | 814 | 10.5 | x |  |  |  | Farbrot et al. 2013 |
| **Guolosjavri BH3** | 69.356 | 21.061 | 780 | 10.5 | x |  |  |  | Farbrot et al. 2013 |
| **Iskoras BH2** | 69.300 | 25.346 | 600 | 58.5 |  | X | x | x | Farbrot et al. 2013 |
| **Jetta BH1** | 61.901 | 9.285 | 1560 | 19.5 |  | X | x |  | Farbrot et al. 2011 |
| **Jetta BH2** | 61.902 | 9.234 | 1450 | 10 |  | X | x |  | Farbrot et al. 2011 |
| **Jetta BH3** | 61.905 | 9.186 | 1218 | 10 |  | X | x | x | Farbrot et al. 2011 |
| **Juvvass BH1** | 61.676 | 8.365 | 1861 | 10 |  | X | x | x | Farbrot et al. 2011 |
| **Juvvass BH2** | 61.684 | 8.372 | 1771 | 10 |  | X | x |  | Farbrot et al. 2011 |
| **Juvvass BH3** | 61.697 | 8.386 | 1561 | 10 |  | X | x |  | Farbrot et al. 2011 |
| **Juvvass BH4** | 61.700 | 8.385 | 1559 | 10 |  | X | x | x | Farbrot et al. 2011 |
| **Juvvass BH5** | 61.701 | 8.392 | 1468 | 10 |  | X | x | x | Farbrot et al. 2011 |
| **Juvvass BH5** | 61.707 | 8.403 | 1314 | 10 |  | X | x | x | Farbrot et al. 2011 |
| **Kistefjellet** | 69.291 | 18.130 | 990 | 24.8 | x |  |  |  | Farbrot et al. 2013 |
| **Lavkavagge BH1** | 69.249 | 20.445 | 766 | 14 | x | X | x | x | Farbrot et al. 2013 |
| **Lavkavagge BH2** | 69.239 | 20.493 | 600 | 30.5 | x |  |  |  | Farbrot et al. 2013 |
| **Lavkavagge BH3** | 69.224 | 20.580 | 492 | 15.8 | x |  |  |  | Farbrot et al. 2013 |
| **Tron BH1** | 62.174 | 10.702 | 1640 | 30 |  | X | x | x | Farbrot et al. 2011 |
| **Tron BH2** | 62.170 | 10.703 | 1589 | 10 |  | X | x | x | Farbrot et al. 2011 |
| **Tron BH3** | 62.151 | 10.715 | 1290 | 10 |  | X | x | x | Farbrot et al. 2011 |